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Patent
Case No.: GY20a

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group:
Examiner:
Applicants: Robert Zahler et al.
Serial No.:
Filed: Herewith
For: Hydroxymethyl(methylenecyclopentyl) Purines and Pyrimidines

Princeton, New Jersey 08540

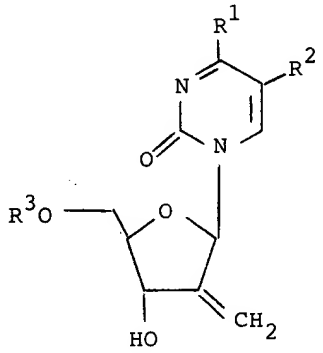
September 17, 1991

To the Commissioner of Patents and Trademarks:

INFORMATION DISCLOSURE STATEMENT

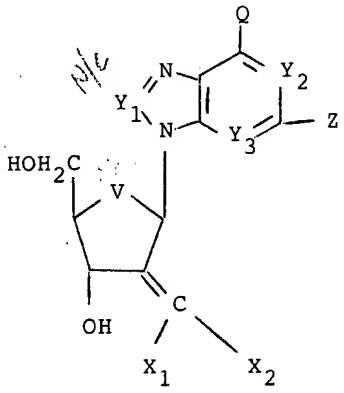
This Information Disclosure Statemnt is being presented as a means of complying with the requirements of 37 CFR 1.56. It includes what the undersigned believes to be the most relevant art. However, no representation is made that better art does not exist nor that a search has been made. A copy of each document is attached.

Ueda et al. (AL) disclose anticancer nucleoside compounds of the formula



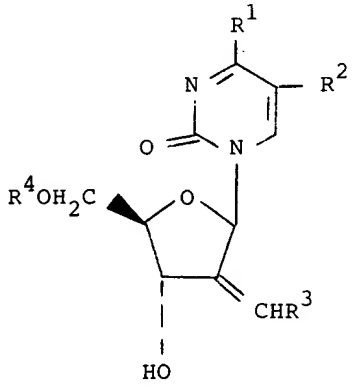
wherein R^1 is amino or hydroxy, R^2 is halogen, alkyl, or haloalkyl, and R^3 is hydrogen or a phosphoric acid residue.

McCarthy et al. (AM) disclose antiviral and anti-neoplastic agents of the formula



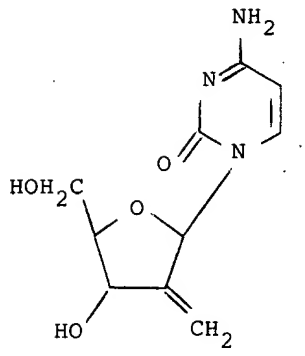
wherein V is oxy, methylene, or thio, X_1 and X_2 are hydrogen or halogen provided that at least one is halogen, Q is NH_2, NHOH, $NHCH_3$ or hydrogen, and Z is hydrogen, halogen, or NH_2.

Matsuda et al. (AN) disclose antiviral nucleosides of the formula

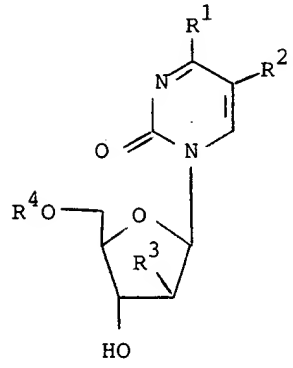


wherein R^1 is amino or hydroxy, R^2 is hydrogen, halogen, or lower alkyl, R^3 is hydrogen or lower alkyl, and R^4 is hydrogen or a phosphate residue.

Yoshitomi (AR) disclose anti-cancer drugs of the formula

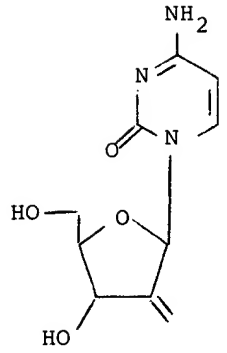


Yamasa Shoyu (AS) disclose antiviral compounds of the formula



wherein R^3 is lower alkyl.

Takenuki et al. (AT) disclose the antineoplastic activity of the compound of the formula



Usui et al. (AR') disclose the synthesis of 8,2'-methano and 8,2'-ethanoadenosines.

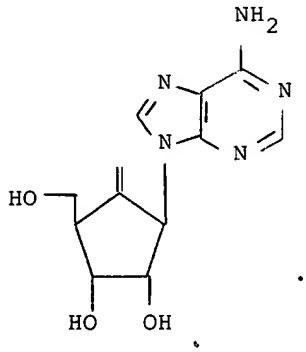
Sano et al. (AS') disclose the synthesis of 6,2'-methano-cyclouridine.

Ueda et al. (AT') disclose the synthesis of 2'-deoxy-6, 2'-ethanocyclouridine.

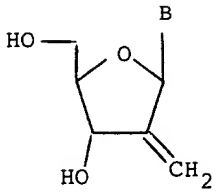
Usui et al. (AR") disclose the synthesis of 2'-deoxy-8, 2'-ethanoadenosine and 3'-deoxy-8,3'-ethanoadenosine.

Ueda et al. (AS") dislcose the synthesis and antitumor activity of 2'-alkyl derivatives of cytidine and thymidine.

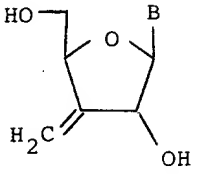
Madhavan et al. (AT") disclose the antiviral activity of the compound of the formula



Samano et al. (AR"') disclose the synthesis of



and



wherein B is uracil, adenine, cytosine, or hypoxanthine.

Herdewijn et al. (AS"'), cited by the Examiner in the parent application, disclose the synthesis and antiviral activity of the carbocyclic analogues of (E)-5-(2-halovinyl)-2'-deoxyuridines and 2'-deocycytidines.

Griengl et al. disclose the antiviral compounds 5-(2-haloethyl)-2'-deoxyuridine, 5-(3-chloropropyl)-2'-deoxyuridine, and 5-(2-chloroethyl)-2'-deoxycytidine.

Thus, none of these references alone or in combination disclose the antiviral compounds of the instant claims.

Respectfully submitted,

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